Claims:

1. An isolated zebrafish genetic strain having a dystrophin mutant phenotype resulting from a mutation within the zebrafish dystrophin gene.
2. The zebrafish according to claim 1 having a *sapje* (*sap*) mutant phenotype.
3. The zebrafish according to claim 2 having a mutation selected from the group consisting of sapje tm90c, tj7, ta222a, and combinations thereof.
4. The zebrafish according to claim 3 having the sapje tm90c mutation.
5. A fish model of mammalian muscular dystrophy or cardiomyopathy comprising an isolated zebrafish according to any one of claims 1 to 4 or progeny, fry, or gametes thereof.
6. The fish model according to claim 5 wherein the mammalian muscular dystrophy is human muscular dystrophy.
7. A method for screening agents having potential activity on muscular dystrophy or cardiomyopathy comprising:

(a) providing a fish model according to claim 5 or 6;

(b) exposing the zebrafish to an agent; and

(c) determining any affect of the agent on a genetic or physical characteristic of the zebrafish or its progeny.

8. The method according to claim 7 wherein the agent is a drug candidate, chemical, compound, nucleic acid, or mixture thereof.
9. The method according to claim 7 or 8 wherein the fish is exposed to the agent by addition to fish raising media, or by direct administration to the fish by any suitable means.
10. The method according to any one of claims 7 to 9 wherein the affect is determined by any visual or light microscopic technique including techniques that utilise transgenic reporter gene expression to monitor muscle integrity.
11. The method according to claim 10 wherein the affect is determined by simple optical inspection of living muscle tissue, birefringency of muscle tissue using polarised light, use of Green fluorescent protein transgenic lines driven by muscle specific promoter(s), use of immunohistochemistry, use of antibodies directed against muscle specific epitopes or *in situ* hybridisation for muscle specific gene expression.

12. A method for monitoring or testing the effect of an agent having activity on muscular dystrophy or cardiomyopathy comprising:

(a) providing a fish model according to according to claim 5 or 6;

(b) exposing the zebrafish to the agent; and

(c) monitoring the effect of the agent on a genetic or physical characteristic of the zebrafish or its progeny.

13. The method according to claim 12 wherein the agent is a drug candidate, chemical, compound, nucleic acid, or mixture thereof.

14. The method according to claim 12 or 13 wherein the fish is exposed to the agent by addition to fish raising media, or by direct administration to the fish by any suitable means.

15. The method according to any one of claims 12 to 14 wherein the affect is determined by any visual or light microscopic technique including techniques that utilise transgenic reporter gene expression to monitor muscle integrity.